

Patent claims

1. A method for controlling data interchange between mobile subscribers (A, B) in a packet-oriented mobile communication network, where

- each subscriber (A, B) is managed at a particular control network node (SGSN) in the mobile communication network on the basis of his respective current location in the mobile communication network,
- connections from/to a mobile communication terminal associated with the mobile subscriber (A, B) are controlled (SGSN) within the mobile communication network by the appropriate control network node,

in which

- the control network node (SGSN) stores an address register containing all of the addresses associated with the mobile subscribers (A, B) managed by the control network node (SGSN),
- the control network node (SGSN) takes incoming data packets and reads a destination address associated with the data packets, and uses a search function to compare said destination address with the address register,
- if the destination address is present in the address register then the data packets are handled and forwarded within the mobile communication network exclusively by the control network node (SGSN),
- if the destination address is absent from the address register then the data packets are routed from the control network node (SGSN) to a further network node (GGSN) in the mobile communication network for the purpose of further handling.

2. The method as claimed in claim 1,  
characterized

in that the address register chosen is a "hashing table" with a hash function.

3. The method as claimed in either of claims 1 and 2, characterized  
in that the mobile radio communication network chosen is a GPRS or UMTS network.

4. A mobile radio communication network having at least one control network node (SGSN), at which mobile subscribers (A, B) in the mobile radio communication network are managed on the basis of their current location and connections from/to a communication terminal associated with a mobile subscriber (A, B) managed at the control network node (SGSN) are controlled within the mobile radio communication network, characterized  
in that the control network node (SGSN) contains a filter function which is used to filter incoming data packets on the basis of a destination address which is respectively indicated in the data packets.

5. The mobile radio communication network as claimed in claim 4, characterized  
in that the control network node (SGSN) contains a table which records all subscribers (A, B) managed by the control network node (SGSN) with the addresses appropriately associated with the subscribers.

6. The mobile radio communication network as claimed in claim 5, characterized  
in that the filter function is able to perform a comparison between a destination address indicated in a data packet and the table's

recorded addresses appropriately associated with the subscribers.

7. The mobile radio communication network as claimed in one of claims 4 to 6,  
characterized

in that the control network node (SGSN) contains a routing function which can be used to route selected data packets with a destination address to the destination address by bypassing other network nodes.

8. The mobile radio communication network as claimed in one of claims 4 to 7,  
characterized

in that the control network node (SGSN) contains the filter function and the routing function coupled to one another such that the data packets filtered out by the filter function on the basis of a destination address respectively indicated in the data packets are forwarded to the respective destination address by the routing function by bypassing other network nodes.